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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,857	10/06/2005	Ralf Schwarz	AP 10472	6610

7590 04/30/2007  
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EXAMINER
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GOLDFARB, JONATHAN A

ART UNIT	PAPER NUMBER
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3663

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/518,857	<b>Applicant(s)</b> SCHWARZ ET AL.	
	<b>Examiner</b> Jonathan Goldfarb	<b>Art Unit</b> 3663	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-46 is/are rejected.
- 7) ☒ Claim(s) 25, 40-42 and 45 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/518,857, filed on 17 December 2004.

### ***Specification***

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

### ***Claim Objections***

4. Claim 25 objected to because of the following informalities: the preamble states "comprising" rather than "further comprising" as appropriate for a dependant claim. Appropriate correction is required.
5. Claims 40-42, 45 objected to because of the following informalities: use of the term "if" makes this section of the claim a conditional, which defaults to no further limitation on the invention. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 24-38, 39-45 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. The term "considered" or "consideration" or "depending on" in claims 24, 25, 28 is a relative term, which renders the claim indefinite. The term "considered" or "consideration" or "depending on" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. State explicitly the relationship between the object and subject of the relevant term.

9. The a) statements of intended use or field of use, c) "wherein" clauses, or d) "whereby" clauses provide language that suggests or makes optional but does not require steps to be performed or does not limit the scope of a claim or claim limitation (MPEP § 2106(II,C)). Accordingly, the metes and bound of the claim cannot be ascertained by one having ordinary skill in the art.

10. Claim 30 recites the limitation "interference yaw torque" in the body. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 33 recites the limitation "compensation gains" in the body. There is insufficient antecedent basis for this limitation in the claim.

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12. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 24-28, and 39 rejected under 35 U.S.C. 102(b) as being anticipated by Becker et al. (US 5,316,379). Becker et al. discloses a method for increasing the driving stability of a motor vehicle during braking, including compensation steering angle calculations and countersteering [abstract].

Regarding claim 25, determining a first interference compensation portion [col. 5, lines 58-60], and determining a second interference compensation portion [col. 6, claim 7].

Regarding claim 26, the second compensation portion is calculated in a device including a reference vehicle model circuit [Fig. 1B (delta difference input to #15); col. 7, lines 4-7].

Regarding claim 27, lateral acceleration (transverse acceleration) is a nominal value for the controlled quantity [col. 6, claim 7].

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Regarding claim 28, the first compensation portion is determined based on the yaw torque, and the second compensation portion is determined based on yaw behavior [col. 1, lines 62-65].

Regarding claims 39-43, Becker et al. discloses an ABS control method [abstract].

15. Claims 39-43 rejected under 35 U.S.C. 102(b) as being anticipated by Bedner et al. (US 2002/0198646). Bedner et al. discloses an ABS control method [abstract and detailed description – see above 35 USC 112 rejection for “wherein”].

16. Claim 46 rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (US 5,228,757). Ito et al. discloses a control for steering correction, comprising: units [Fig. 11; col. 13, lines 5-28] for

- a. determining steering angle [Fig. 11; col. 13, line 9 (#26)],
- b. determining compensation angle based on braking forces [Fig. 11; col. 13, line 8 (#23)],
- c. determining compensation angle based on yaw [Fig. 11; col. 13],
- d. logic unit for linking the above [Fig. 11].

### ***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claim 29 rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (US 5,316,379), and further in view of Bedner et al. (US 2002/0198646). Becker et al. discloses a method for increasing the driving stability of a motor vehicle during braking, including compensation steering angle calculations and countersteering, as above. However Becker et al. is silent regarding open- and closed-loop control portions for the first and second compensation portions, respectively. Bedner et al. teaches just that [abstract].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the control loop portions of Bedner et al. in the method for increasing driving stability of Becker et al. so that the aforementioned steering and braking method will work more effectively by applying the best control loop for the most appropriate circumstance – depending on possibility of steering correction.

20. Claim 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (US 5,316,379), and further in view of Ding (US 6,427,102). Becker et al. discloses a

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method for increasing the driving stability of a motor vehicle during braking, including compensation steering angle calculations and countersteering, as above. However Becker et al. is silent regarding yaw torque calculations based on steering lock angle, brake forces, and wheel behavior. Ding teaches just that [col .3; lines 21-49].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the yaw torque calculations of Ding in the method for increasing driving stability of Becker et al. so that the aforementioned steering and braking method will work more effectively by calculating yaw torque based on standard parameters and variables.

21. Claim 31 rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (US 5,316,379), and further in view of Ding (US 6,427,102), and further in view of Becker et al. Becker et al. and Ding discloses a method for increasing the driving stability of a motor vehicle during braking, including compensation steering angle calculations, countersteering, and yaw torque calculations, as above. However Ding is silent regarding brake force calculations. Becker et al. teaches just that [col. 5, claim 1 (lines 57-60)].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the brake force calculations of Becker et al. in the methods of Becker et al. and Ding so that the aforementioned steering and braking method will work more effectively by calculating brake force based on standard parameters and variables.



22. Claim 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (US 5,316,379), and further in view of Bedner et al. (US 2002/0198646). Becker et al. and Ding discloses a method for increasing the driving stability of a motor vehicle during braking, including compensation steering angle calculations, countersteering, yaw torque calculations, and brake force calculations, as above. However they are both silent regarding yaw torque calculations. Bedner et al. teaches just that [0015, 0016].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the yaw torque calculations of Bedner et al. in the methods of Becker et al. and Ding so that the aforementioned steering and braking method will work more effectively by calculating yaw torque based on standard parameters and variables.

23. Claims 33-38 rejected under 35 U.S.C. 103(a) as being unpatentable over Becker et al. (US 5,316,379), and further in view of Ito et al. (US 5,267,160). Becker et al. discloses a method for increasing the driving stability of a motor vehicle during braking, including compensation steering angle calculations and countersteering, as above. However Becker et al. is silent regarding compensation gains. Ito et al. teaches just that [col. 22, line 3-end].

Regarding claim 34, calculations for the second compensation portion are noted [col. 13, (top-end, specifically lines 8-16 and 41-45)].

Regarding claims 35-38, the P and D portions and their respective gain factors are noted [col. 22, line 3-end].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the standard equations and gain constants shown in textbooks and in Ito et al. in the method for increasing driving stability of Becker et al. so that the aforementioned steering and braking method will work more effectively by providing yaw feedback to the steering compensation control system.

As to limitations which are considered to be inherent in a reference, note the case law of In re Ludtke, 169 U.S.P.Q. 563; In re Swinehart, 169 U.S.P.Q. 226; In re Fitzgerald, 205 U.S.P.Q. 594; In re Best et al, 195 U.S.P.Q. 430; and In re Brown, 173 U.S.P.Q. 685, 688. Note that a standard equation and corresponding gain constant (here, related to claims 31-38) is a regular feature for steering and brake control, and can be deemed inherent.

24. Claims 44-45 rejected under 35 U.S.C. 103(a) as being unpatentable over Bedner et al. (US 2002/0198646). Bedner et al. discloses a method for an ABS brake pressure control method for a vehicle with high-pressure gradients on a wheel with a high friction coefficient [abstract; 0003; 0013]. However Bedner et al. is silent regarding the specific factors in the pressure differential relation, as claimed.

As to limitations which are considered to be inherent in a reference, note the case law of In re Ludtke, 169 U.S.P.Q. 563; In re Swinehart, 169 U.S.P.Q. 226; In re Fitzgerald, 205 U.S.P.Q. 594; In re Best et al, 195 U.S.P.Q. 430; and In re Brown, 173 U.S.P.Q. 685, 688. Note that a standard equation and corresponding factors (here, related to claim 44) is a regular feature for pressure differentials as steering and brake control, and can be deemed inherent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to use the standard equations and corresponding factors in the method for increasing driving stability of Becker et al. so that the aforementioned braking control method will work more effectively by providing pressure differentials to the braking compensation control system.

Regarding claim 45, Bedner et al. notes traditional ABS strategy if steering control is not available [abstract].

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Goldfarb whose telephone number is 571-272-7964. The examiner can normally be reached on M-Th 9-5, F ~2.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JG  
20-Apr-07



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